

Abstract

A high-speed memory management technique that minimizes clobber in sequentially accessed memory, including but not limited to, for example, a trace cache. The method includes selecting a victim set from a sequentially accessed memory; selecting a victim way for the selected victim set; reading a next way pointer from a trace line of a trace currently stored in the selected victim way, if the selected victim way has the next way pointer; and writing a next line of the new trace into the selected victim way over the trace line of the currently stored trace. The method also includes forcing a replacement algorithm of next set to select a victim way of the next set using the next way pointer, if the trace line of the currently stored trace is not an active trace tail line.

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